

Processes and Job Control

What You Will Learn

- List running processes.
- Foreground vs background processes.
- Launch background processes.
- Kill processes.

Listing Processes and Information

ps Display process status.

ps Options

- e Everything, all processes.
- f Full format listing.
- u username Display username's processes.
- p pid Display information for PID.

Common ps Commands

<code>ps -e</code>	Display all processes.
<code>ps -ef</code>	Display all processes, full.
<code>ps -eH</code>	Display aprocess tree.
<code>ps -e --forest</code>	Display aprocess tree.
<code>ps -u username</code>	Display user's processes.

Other ways to view processes

<code>ps tree</code>	Display processes in a tree format.
<code>top</code>	Interactive process viewer.
<code>htop</code>	Interactive process viewer.

Demo -ps

Background and Foreground Processes

`command &` Start command in background.

`Ctrl-c` Kill the foreground process.

`Ctrl-z` Suspend the foreground process.

Background and Foreground Processes

<code>bg [%num]</code>	Background a suspended process.
<code>fg [%num]</code>	Foreground a background process.
<code>kill</code>	Kill a process by job number or PID.
<code>jobs [%num]</code>	List jobs.

Killing Processes

`Ctrl-c`

Kills the foreground proc.

`kill [-sig] pid`

Send a signal to a process.

`kill -l`

Display a list of signals.

`kill 123`

`kill -15 123`

`kill -TERM 123`

`kill -9 123`

Demo - background

Demo - ps

Summary

- `ps`
- `Ctrl-c`
- `Ctrl-Z`
- `bg`
- `fg`
- `jobs`
- `kill`